

**ABSTRACT OF THE DISCLOSURE**  
**SYSTEM AND METHOD FOR IMPLEMENTING A COMMUNICATION**  
**PROFILER**

5           A system and method for recording and transmitting data concerning hardware  
performance in data processing systems. A host system includes a host processor, a data  
processing element and a host system memory coupled via a host interconnect. The data  
processing element includes multiple master elements, multiple slave elements, a system  
interconnect, and a communication profiler. A determination is made if the received  
10       address a valid primary or secondary address. Then, if a valid primary or secondary  
address is received, data are stored in a memory system and the transaction timer is set  
and started. If the present operation is considered secondary, the present operation is  
held until the primary operation is complete. When the primary operation is completed,  
the secondary operation is now designated a primary operation. Then, the transaction  
15       timer is turned off when the data transfer operation ends. The data are then serialized and  
transmitted. The operation then returns to its starting state.